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BREECH OF A GUN IMBEDDED IN THE BONES OF THE FACE EIGHT YEARS. REMOVAL. RECOVERY.

By James N. Fraser, M.D., St. John's, Newfoundland.

[Read before the Boston Society for Medical Improvement, January 12th, 1863, and communicated for the Boston Medical and Surgical Journal.]

On the 14th of October, 1848, William Roberts, of Brigus, Newfoundland, aged 30 years, by occupation a fisherman, of large frame and robust constitution, sustained, whilst at Labrador, a very serious injury of the face by the bursting of a gun. His nose and right cheek were severely cut and contused, and the whole face completely blackened. Violent inflammation, with great swelling, supervened, and he continued in a state of insensibility for three days. When restored to consciousness, he complained of excruciating pain in the face, which continued unabated for three weeks; and great noise in the head, which lasted for six months. Three weeks after the injury he arrived at Brigus, and then for the first time consulted a medical gentleman, who, however, from the inflamed and œdematous condition of the whole face, could not possibly form a decided opinion as to the precise nature of the injury. The patient was put under medical treatment, and was unable to leave the house until March, 1849, and was then only able to walk a short distance; a constant fœtid, purulent discharge escaped from the right cheek and nostril. In May, 1849, the wound in the cheek completely healed over, but the discharge continued from the nose. In June, he went to the summer fishery, but from his debilitated state could work but little.

The wound in the face remained closed until November, 1854, when an opening formed near the right ala nasi, through which a purulent discharge, with a quantity of powder and rust, escaped. On the 2d of January, 1855, he was suddenly seized with alarming hæmorrhage from the right nostril, the blood being quite florid, and escaping in a full stream, when another medical gentleman was sent for. The bleeding continued more or less from 1 until 4 o'clock, P.M., when it ceased, but recurred every eight or ten days, until April of the same year. Since then there has been little or no hæmorrhage.

During the whole of the foregoing period the patient suffered from severe headaches—sometimes complained of dimness of vision in the right eye, and occasionally of pain in that organ. The sense of smell was completely lost; his appetite varied, sometimes being very good, at other times extremely bad; he subsisted almost entirely on fluids; altogether his general health became seriously impaired.

In May, 1855, he came to reside in St. John's, and consulted several medical gentlemen, but obtained no relief. In August following, the pain in the face became much more intense than it had been since the occurrence of the accident. An abscess formed in the right cheek, and a copious discharge of purulent and serous matter, together with more powder and rust, followed; after which the pain only occurred occasionally.

He applied to me for advice on Tuesday, the 17th of June, 1856, stating that his face had been injured nearly eight years previously by the blasting of gun-powder, and made no mention of a gun having burst in his hands, until after the operation about to be described was performed. He informed me that he had undergone different kinds of treatment, and applied various remedies to the face, without deriving the slightest benefit therefrom. On examination, I found the right malar bone considerably enlarged, the right side of the face a little swollen, and a cloaca existed in the right cheek, situated nearly opposite the upper border of the ala nasi. Having passed a probe into this opening, I detected what I at first supposed to be a large piece of necrosed bone, which could be slightly moved. As he could not open his mouth more than a quarter of an inch, I failed in ascertaining the state of its interior. I examined the nasal cavity with the speculum, but discovered nothing abnormal.

As the man's health was rapidly giving way under the irritation and constant discharges to which he was subjected, I advised him to submit to an operation, to which he most willingly assented. On Thursday, the 19th of June, two days after I first saw him, I proceeded to operate, assisted by Dr. W. C. Simms. The patient having been put under the influence of chloroform, I made one incision from the upper border of the right ala nasi, extending across the cheek towards the prominence of the malar bone, and a second beginning at the commencement of the first, and extending downward towards the angle of the mouth, and retracted the flap thus formed, when it became obvious that the cause of so much suffering was not diseased bone, but *metal.* After considerable difficulty, I succeeded in extracting (what is almost incredible) the *breech of a gun!* the presence of which had never been suspected. The patient was only sensible of the last two or three efforts at extraction, and although there was no hæmorrhage of any consequence during the operation, we did not, during its latter part, induce complete anæsthesia, fearing that blood might find its way into the trachea, and cause suffocation.

The piece of metal weighed a little more than four ounces, and was quite oxidized. The transverse portion measured in length $1\frac{1}{2}$ inches, in breadth $\frac{5}{8}$ of an inch at one part, and $\frac{1}{2}$ an inch at its narrowest part—its thickest portion measured $\frac{5}{8}$ of an inch. That portion of the breech which is screwed on to the stock measured in length $2\frac{6}{8}$ inches, and in breadth $\frac{5}{8}$ of an inch. The screw measured in circumference 2^{5} inches.

It now only remains for me to state, so far as I can, the position occupied by this foreign substance, and the subsequent progress of the case.

The superior maxilla was evidently fractured over the antrum Highmori; the transverse portion of the breech with the greater part of the screw passing into that cavity, became embedded there; and a large opening was formed between the antrum and right nasal fossa. The long part of the breech, or that portion which is screwed on to the back of the stock, passed backwards between the under surface of the zygomatic arch and the coronoid process of the inferior maxilla, its edge resting on the alveolar processes of the superior maxilla, and its extremity extending nearly as far backwards, I imagine, as the lower part of the temporal surface of the great wing of the sphenoid bone; its edge, near the extremity, being in close contact with the external plate of the pterygoid process of that bone. Such, I think, must have been pretty nearly the position occupied by this singular intrusion.

No inflammation followed the operation, and since its performance the patient has been almost wholly free from pain.

On removing the breech the cavity appeared quite black, and for a few days a dark purulent discharge, together with small pieces of rust, escaped. Healthy granulations then sprang up, and the parts rapidly contracted. Now (July 4th) the cavity is nearly filled up, and the external wound almost closed. The action of the lower maxilla is slowly improving, and he has quite recovered the sense ot smell. The only after-treatment consisted in the administration of one or two doses of aperient medicine; and the constant application to the sore of pledgets of lint moistened with cold water. In a few days the man will, I think, be quite able to resume his usual calling.

[In a letter from Dr. Fraser, recently received, he says :—I have little to add to the account of the case already in your possession. Ever since the operation the patient has continued in the enjoyment of excellent health; but suffers considerable inconvenience from the very limited action of the inferior maxilla. This, I imagine, was caused in the first instance by the position of the piece of metal confining the movements of the articulation; and subsequently by the inflammatory action, and consequent alteration in the structures of the joint. He suffers no pain whatever; and pursues his usual avocations uninterruptedly.]

At the meeting at which the above was read, Dr. JACKSON showed a cast in plaster of the foreign body that was sent some years ago to Dr. D. H. Storer, and that is now in the Cabinet of the Medical College. He also referred to a specimen that he had seen at the Fort Pitt Museum, Chatham, near London:—a cast of the breech and screw of a fowling-piece. The gun burst, and the piece was driven into the frontal sinus, where it remained for eight years; a portion of it, during the greater part of the time, protruding through the palate and into the mouth.

CASE OF CO-EXISTENCE OF CANCER AND TUBERCLE.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—I read with much interest the article from the *Edinburgh Medical Journal*, re-published in yours of the 25th of December, on the co-existence of cancer and tubercle, and was somewhat surprised that any pathologist of the present day should maintain that the two diseases are mutually antagonistic, or exclusive of each other. Formerly it was contended that the morbid condition known under the term of "morbus cœruleus," or cyanosis, was incompatible with phthisis. I sent to the Boston Pathological Society a specimen of heart, in which there was a large opening from the right to the left ventricle, the subject of which had the *blue disease*, and died with tubercular phthisis at the age of 19 years. I was more surprised that the author of the above-mentioned paper had never met with a case where he was satisfied that cancer and tubercle co-existed in an active form; and though he does not deny that the two morbid conditions may occasionally co-exist, he says the question has not been satisfactorily solved. For this reason I am induced to send you an account of a case which came under my observation about one year since. I did not take notes of the case, as the patient was not under my care, and I only saw him once in consultation, but I will give the details from memory.

Mr. S., of South Hadley, aged about 46 years, desired my attendance in consultation with Dr. Lester, of that town. I found the patient sitting in a chair. Respiration was short and hurried; pulse 130, and feeble; very much emaciated. Coughed but little, and not much expectoration. There was considerable nausea, and some pain over the region of the stomach and bowels. The physical signs were peculiar, and calculated to deceive in forming a diagnosis. The chest was full, but no respiratory sounds could be heard on the left side, not even the tubular murmur. Percussion gave the dull sound everywhere over the left lung. On the right side, a little gurgling sound with bronchophony existed, as if the air did not penetrate into the lung, but was puffed out in a short, rapid manner. It was evident to me that the left lung was solidified, and that the right was full of crude tubercle. That was the clearest diagnosis I could make out at the time, with the opinion that the patient would live but a short time; and as I was not satisfied of the real nature of the disease, I desired Dr. Lester to procure an autopsy if possible. He had been, at intervals, in attendance for a space of about two years.

In about two weeks from the time I saw the patient, Dr. Lester desired me to attend the *post-mortem*. Both lungs were adherent to the pleura. The right had large masses of crude tubercle; some portions of the deposit were softened, but the greater part were of a curdy consistence. There was no distinct vomica connecting with a bronchial tube. The nature of the deposit could admit of no doubt. I removed a portion of it for future examination. In the left side, the whole cavity was filled with a hard, fibrous substance, portions of which cut with the cartilaginous or gritty feeling so peculiar to a scirrhous substance. On the top of this lung were found some small portions of tubercular deposit, similar to what was seen in the right lung; the scirrhous substance preserved somewhat the form of the lung. The heart was healthy, except that there were some adhesions of the pericardium to the sternum. The liver was normal. There was some tubercular deposit on the mucous surface of the intestines, and also in the glands. I regret exceedingly that no microscopic examinations were made, as I removed some of each portion of the morbid product with that view, but my professional engagements were so pressing that I neglected to examine them. I found, at the time of making the examination, that there was an hereditary tendency to both cancer and tubercle in this individual.

Holyoke, Dec. 29, 1862. A. Bryant Clarke.

NOTE ON THE CUMULATIVE ACTION OF MEDICINES.

By Alexander Fleming, M.D., Fellow of the Royal College of Physicians, London, &c.

In my lectures on therapeutics, I have found it useful to the student to describe three modes of exhibiting medicines, in relation to the interval between the doses: the *simple*, where the second dose is not given until the action of the first has completely subsided; the *sustained*, where the doses are repeated at such intervals as to keep up without increase or diminution the required degree of physiological action, as in the use of wine; and, thirdly, the *cumulative*.

Although the term cumulative action is much used, it is often wrongly applied, and its meaning is, at all times, vague and uncertain. It is commonly employed to denote the exhibition of a medicine for some days, in small and repeated doses, without marked effect, when suddenly and unexpectedly violent, and, it may be, dangerous symptoms of its action are developed. The successive doses are supposed to remain in some obscure and unexplained way quiescent in the blood, until the so-called cumulative action is manifested. The administration of digitalis and strychnia are cited as affording examples. It is said that digitalis may be given continuously for several days, and apparently without effect, when suddenly a feeble irregular pulse, fainting and cold sweats, usher in the poisonous action of the drug. In like manner, successive pills of strychnia may be taken and remain inert, when unexpectedly and suddenly severe tetanic symptoms supervene.

Now the sudden eruption of alarming symptoms during the continuous use of these medicines can be satisfactorily explained without reference to any mysterious agency. In the case of strychnia there is no cumulative action, but simply an example of the non-solution and retention of the medicine in the stomach and bowels. It is observed only when the medicine is given in pill. This alkaloid is hard of solution in the gastric fluid, and one, two, three or more pills are apt to remain undissolved and accumulate in the stomach or bowels. Suddenly, from some change in the patient, there is an abundant flow of gastric juice, and all the pills are simultaneously rendered soluble and active. This apparent cumulation of strychnia is never observed when it is given in solution. In the exhibition of digitalis, on the contrary, as I shall presently explain, we have an example of true cumulative action but imperfectly observed and understood.

I think it would be more correct to restrict the term *cumulation*, or *cumulative action*, to denote exclusively the gradual increase of physiological action from the successive exhibition of equal doses. When a second dose is given before the effects of the first have passed away, we add to what remains of the action of the first the full operation of the second, and so on with the third and subsequent doses until, finally, the sum of effects exceeds the limits of medicinal, and passes into those of poisonous, action.

In the exhibition of mercury, arsenic, aconite, digitalis, and other medicines, we adopt the cumulative mode, because it is safer and more efficient. The tolerance of these medicines varies so much that no physician can say what amount of any one of them is required to produce a given degree of physiological action. He might exceed the proper dose and cause danger. But by the cumulative addition of the effects of successive doses in the manner described, we advance cautiously and safely to the required degree of action, and the symptoms are more under control. The interval between the doses is determined in each medicine by the duration of its action. Between successive doses of mercury it may be twelve or even twenty-four hours, while, to secure the cumulative action of digitalis, it should not exceed four to eight hours. Our knowledge here is imperfect in respect to many drugs, and cannot be reduced to rules.

The cumulative mode of exhibition is most necessary with sedatives, as aconite and digitalis; and in using them the pulse must be carefully observed, for it is an important fact, in connection with sedation, that the circulation may be lowered to a remarkable degree without the patient being conscious of, or showing any material change in his other functions. But carry the depression just a little further, and the heart's action is suddenly and seriously embarrassed, and the patient has fainting, cold sweats, and the sense of impending dissolution. Now, the early effects on the pulse of the cumulative depression of digitalis are apt to be overlooked, and the belief obtains, as already stated, that the first doses produce no effect whatever; but this is an error. I have often watched the cumulative use both of digitalis and of aconite, and have never failed to detect depression of the circulation from the early doses, and its subsequent gradual increase. I should add that, as a sedative, I am careful to give digitalis so as to secure its prompt and easy absorption, and to avoid its local irritant effect on the stomach, which complicates the general symptoms of the medicine.

On the other hand, in the administration of atropia and strychnia it is no less important to avoid cumulation. Their use often extends over a considerable time, and it is safer to use the *simple* mode of exhibition, and to give the doses at such intervals that the action of the first has entirely subsided before the second is taken. Nor is there any danger with these drugs in inducing the required degree of medicinal action with one dose, provided its amount be determined by careful trials, commencing with small and advancing gradually to larger doses. For example, I give atropia thus,—10 minims (containing $\frac{1}{60}$ of a grain) of a solution are exhibited once daily, and the dose is increased daily by 2 or 4 minims until I obtain the required degree of atropism. The action of one dose endures sixteen or eighteen hours, but ceases before the next is given and there is no cumulation, which it is safer to avoid, especially as the use of atropia is often continued for several weeks.

There is another order of physiological effects, sometimes named cumulative, which require notice here. They have been observed to follow the use of alcohol and aconite. I refer to the wakefulness, tremor, and exhaustion (delirium tremens), from prolonged excess, symptoms quite different from the ordinary stimulant and narcotic action of spirit, but distinctly traceable to its *continued use.* In the same manner, I have observed in patients who have been taking aconite in full doses for a lengthened period, that ultimately they have become affected with general tremors, severe pain in the head and eyeballs, constant lachrymation, intense photophobia, heat of skin, quick pulse and great restlessness, symptoms which, while very different from the ordinary sedative action of aconite, were clearly attributable to its long-continued employment. In the cases where I noticed these results, the aconite being discontinued, the symptoms, which were by no means alarming, subsided in a day or two.

Effects allied in nature to this action have also been traced to tobacco and to mercury.

In my lectures, to prevent the student confounding these effects with cumulation, I found it needful to distinguish them by the name of *sequel* action. At present the study of the sequel action of medicines does not offer much interest in the way of practical application; but it might at a future time acquire more importance. For example, one of the patients who exhibited the sequel action of aconite had been long a confirmed intermittent drunkard. From the time that he presented these symptoms the craving for spirit, previously so irresistible, never returned, and he continued to lead a sober life for at least four years while I knew him. Meantime it is well not to confound together things essentially distinct. The sequel action is due to the continued exhibition, and is a direct operation of the medicine, and must not itself be confounded with the symptoms which arise from the sudden suspension of a drug, such, for example, as opium, to which the body has become habituated. The extreme nervous prostration and excessive perspiration, urination and diarrhœa, which supervene on the sudden withdrawal of the habitual supply of this narcotic, are a good example of one of the forms of medicinal *reaction*. The cumulative and sequel actions are both phenomena of the forward, the reaction of the backward, swing of the physiological pendulum.

In relation to strychnia, I have already referred to the error of confounding true cumulative action with the accumulation of medicine in the bowels. This evil happens with solid medicines, as caustic magnesia, strychnia, and calomel, which require the intervention of the gastro-intestinal secretions for their solution and absorption. If the dose exceed the solvent power of the fluids, or these are deficient in quantity, then a portion of all the medicine remains undissolved, and is either expelled quickly by stool or lodges for a time in the bowels. If, while there, the visceral fluids become more abundant, it may be suddenly dissolved and by its absorption give rise to severe effects. I could cite many examples of this, but I have said enough to make evident the distinction between cumulation and the effects produced by the sudden solution and activity of a solid drug which has accumulated in the bowels.

ON NON-INTERFERENCE IN NATURAL LABOR.

By John Paterson, M.R.C.S.E., Aberdeen.

For a period of more than thirty years no obstetric fact has made a deeper impression on my mind than the effort which nature makes, under the most adverse circumstances, gradually and successfully to complete her work, so as to ensure the safety of the mother and infant. In no branch of the profession is this more to be observed than in midwifery. It is Nature's greatest work—*life;* and she is perhaps more jealous here than in any of her other operations, that it should be done well; and it always is so, unless when there is an error on the part of the mother, or when, as more frequently happens, it is impeded by the ignorance or dishonesty of an unprincipled and unskilful midwife or other medical practitioner.

In medical work generally, but particularly in midwifery, I have not always found that strict adherence to truth which might be expected in members of so learned and scientific a body as ours. In no profession ought this virtue to be more valued, especially where the life of a fellow-creature and the happiness of a family are so frequently involved. The young and inexperienced practitioner, naturally disposed to place implicit confidence in those possessed of more practical knowledge than himself, is not seldom deceived by the ignorant, who act and write but to serve selfish purposes; by the illiterate and presuming midwife, who knows no better; but oftener by the grasping and selfish practitioner, whose object is to hasten his case, save time, and thus add to the number of his fees and patients. I believe that the profession has yet to learn how frequently *art* is resorted to, wantonly and unnecessarily, by members high in practice, adding greatly to the mortality of mothers and children. Nature's plain, simple and safe laws are disregarded, and her lessons to wait, watch, and learn how far she can, unassisted by art, in almost every case, successfully accomplish her work, are often wilfully, nay, almost criminally, neglected.

There is no precept more deeply engraven on our obstetric literature by every writer of authority than this, that *prolonged labor, unaccompanied by dangers arising from other causes, is not a matter of almost any consequence, so far as the safety and permanent recovery of the mother is concerned;* and it has been an apophthegm from the days of Hippocrates till now, that meddlesome midwifery is bad.

Dr. Osborne—than whom we have no greater authority—states, while speaking of difficult and instrumental delivery, that he believes it is confirmed by general observation, that women recover at least as well after long, lingering and laborious labor—the duration of which may have been extended to some days—as after the easiest, quickest, and most natural delivery, and my experience leads me to the same conclusion.

In these remarks it is my object to show how far the mortality of mothers and children may be lessened by the course which I have been pursuing during a practice of nearly thirty-five years. It is short, plain, and simple; indeed, no great or useful work has ever been accomplished but by the simplest means, and never without much time, patience, and self sacrifice.

I think it is the duty of every accoucheur to visit his patient more frequently before and after her confinement than is generally done, to make himself intimate with her condition, former habits, and character, and even to become familiar with her peculiarities, for females are never without these, particularly during pregnancy and labor, and to lay down at every stage of pregnancy a clear and distinct course of hygiene, which he should take care to have strictly adhered to, not only up to the time of confinement, but for at least six weeks after it. He should examine personally the *bladder* and *rectum*, and see that they contain nothing that can be obstacles to the labor before its commencement. He should never permit the patient to think that her labor has really commenced till the *os uteri* is nearly the size of a crown-piece. He should have her as seldom in bed as possible, till the child's head is about to escape from the *uterus*. With his own hands he should place the infant at the breast the moment it is dressed, or, if possible, should not leave the apartment till he has seen this done. This is the only safeguard, nothing else will prevent danger from flooding. He must insist on the mother throwing off the afterbirth herself in the same way and by the same means that she bore her child; and if she tells him that she has no pains, he should ask her, at least within twenty minutes after the birth of the infant, to make them, and press down as in labor. I seldom or never put a finger on the *placenta* till it tumbles into my hands. All this must be done by the efforts of the mother alone. The contraction which naturally follows throws off the *placenta*, and if the child is applied immediately thereafter to the breast, the contractile powers of the *uterus* —another name for after-pains—are so much increased, that the *os uteri*, by these means, is effectively closed very soon after the birth of the infant. The *lochia*, from following this treatment, generally disappear in forty-eight hours, and no bad symptoms ever follow. Why should they? Is delivery not purely and simply a work of nature, the farthest possible from disease? It is the work of *life*, not of *death*. By disregarding these rules, and other apparently trifling precautions, the lying-in chamber has been made not only the abode of disease and death, but has, at the least, cut off every tenth married female by countless maladies, malignant and otherwise, within five years after the end of menstruation. In bringing off abortions I almost always do so successfully by the same means. I never poke for hours at the *os uteri*, producing often inflammation and ending in disease, from which the patient seldom or never thoroughly recovers. Impacted fæcal matter in the *rectum*, and a distended *bladder*, are, I believe, in ninety-nine cases out of the hundred, the causes of the loss of the child, and of resorting to instrumental labor, which but too often terminates in the death of the mother, or renders her miserable for life. If the duties I have indicated were properly attended to by the accoucheur himself, and the necessary time and patience were bestowed, what is called protracted labor would seldom be heard of, and most cases would end favorably, unless where there is deformity of the *pelvis*, or some other natural obstacle, which it is impossible to remove.

The following statistical data, derived from nearly three thousand cases, which I have arranged in a tabular form, will present to the reader, in the readiest and shortest way, some points well worthy of his serious attention:—

Presentations and Complications.	Number.	Children stillborn.	No. of mothers recovered.
Arm,	7	5	All.
Feet,	31	6	All.
Breech,	42	10	All.
Retained placenta { with hæmorrhage, 7 without do. 9 }	16	0	All.
Twin births,	26	0	All.
Face to pubes,	21	2	All.
Face presented,	4	2	All.
Prolapsus funis,	4	2	All.
Convulsions,	1	1	All.
Protracted labor,	14	0	All.
Out of which were, with forceps, 9; lever, 0,	9	5	All.

Deaths from independent causes—from phthisis, 5; from dysentery, 3; and other diseases, 9; total, 17.

Only 3 of these happened before the end of the first month, and 6 of the instrumental cases occurred during the first seven years of my practice. By strict attention to the bowels I have had no case of laceration of the perinæum for more than fifteen years.

In the foregoing table it will be seen that there is not recorded the death of a single mother in nearly 3000 cases of labor, unless where it arose from independent causes. Many of the parties were in the middle ranks of life, the wives of respectable workmen, and subject for years past, from the social condition of the country, arising from expensive living, and the difficulty of finding employment, and preserving their status in society, to perhaps more moral, emotional and physical causes injurious to health than at any former period in the history of the country. Considerably above a hundred may have been illegitimate cases, most of them connected with decent families, and such are always dangerous, tedious, and difficult to recover. Between three and four hundred were brought up in factories, and many of their parents before them. Among this class there is probably the largest amount of mortality, not excepting the highest circles, and much more than among the very lowest society, who have at least the open air and out-of-door exercise, and, for the most part, less care and anxiety than the class immediately above them. With such an amount of success as this table shows in an artificial state of society, and where nature's laws are so frequently broken, we can the more readily conceive how far nature will make her way under the most disadvantageous circumstances, and also with what ease the females of savage tribes perform this part of the work of nature, in almost as short a period, and with as little pain, as any of the other evacuations. These facts will, I trust, lead other members of the profession to record the results of their practice, if in any way favorable, or else cause them to pause and think whether this branch of our profession has received that attention, or had that justice done it, which, above all others, it so well deserves.

There is room for improvement at home, but more so on the Continent, where instruments are used in every fifth, tenth, fifteenth, or twentieth labor, under the charge of the medical men there, in order to expedite delivery. This is also done by many in this country, whose dangerous doctrines, inculcating the most unjustifiable and uncalled for interference, are injurious alike to mother and child, and are too often followed from the worst and most selfish purposes.

The late Dr. Joseph Clarke, of Dublin, who was one of the most amiable and upright members of the profession, moving in the highest circles, eminent in his position, who was characterized by a professional friend as a physician without guile, and whose useful life was closed by a Christian death, had, besides the charge of a large in-lying institution, 3862 private cases of midwifery, out of which he never lost a mother, and he had only one forceps case, which he failed in completing. If such was the practice of this great and good man, what must we think of those who are seldom weeks without instruments in their hands, and never go a distance from home without having them on their person. Surely there must be something radically, if not criminally wrong, in all this, which even demands some movement on the part of the legislature. The want of practical knowledge in the medical student is another source of the extensive evils from which mothers and children suffer so much during pregnancy and labor. He has never had the opportunity of obtaining anything but a small portion of knowledge in this department before entering into practice. The knowledge which students acquire at most of our schools is not of the kind suited to impart confidence, when, at the outset of their professional career, they are left entirely to their own resources. Not from any want of perseverance in their teachers, who are most indefatigable in their endeavors to procure cases, but partly from the want of a properly organized system, partly from the state of society in this country, the result is that the student is left almost entirely to himself in his search after practical knowledge in this branch of his profession. To pass an examination for M.D., or surgeon, attendance on a few cases of midwifery is all that is required. Hundreds of cases are not sufficient to enable the young practitioner to know when and how to hold his hand from doing mischief, or to give him the confidence sufficient to ensure the safety of his patient, even in a simple and natural labor. In the outset of his professional career, he is not therefore altogether to blame, if thrown on his own resources, with little or no practical knowledge, clinging to the theoretical opinions instilled into him by his teachers, without a guide, and with no clear practical data to fall back upon, wavering between what he has read in books, his class-room prelections, and his after-experience, he flounder on unsatisfactorily, and is never comfortable in his mind through a long professional life, and never learns to have a decided opinion of his own. A writer alluding to Dr. Clarke's practice, says, how seldom would practitioners be found to use instruments, if the successful course pursued by this eminent accoucheur were universally aimed at. Is it not worthy of our best consideration, with the invaluable statement before us, that in an extent of practice in the upper ranks of life, perhaps unexampled, there is not a single instance of death resulting from laborious or protracted labor.

In the course of a long professional life, of which the above remarks give a brief and imperfect retrospect, I have learned that neither talent however dazzling, nor genius though of the rarest kind, will alone lead to success in this branch of the profession. Extreme care and attention are necessary; patience unlimited; an almost perfect negation of time, of every selfish feeling and personal comfort, even health itself, must be conceded, before the greatest amount of success can be obtained. And thankful ought the humblest member of the profession to be that every upright and faithful practitioner has all these virtues in his own power, however slender his acquirements may otherwise be.

As for myself, after a long and rather laborious professional life, I am well content to admit that I am but a sorry instrumental operator. This, in my opinion, is the highest compliment that an accoucheur can receive; and I trust the time is not far distant when every member of the profession will deem it an honor to avow, not how often, but how seldom, through a long professional life, he has resorted to instrumental means.—*Ibid.*

Army Medical Intelligence.

Dr. A. B. Hall's Report on the Inspection of Recruits.

Surgeon-General Dale. Boston, December 24, 1862.

Dear Sir,—On the 7th of August last, I was detailed by you to examine, at the Meionaon, under the auspices of the War Committee of Ward 4, such volunteer recruits as might enlist to fill up the quotas of Massachusetts for the Army of the United States. Drs. J. A. Lamson and M. C. Greene were associated with me, by your authority, in the discharge of the official duties imposed on me. I have the honor now to report the results of our labors, together with such medical facts as seem to me of interest.

The period of our duties extended to within three or four days of three months. During this time there were examined 2,286 recruits who had enlisted for three years' service, and 1,672 for nine months' service; 384 of the three years' men were rejected, for some physical or mental inability, being a little less than 17 per cent., and 1,902 were accepted; 196 of the volunteers for nine months were rejected, or a little more than 11 per cent., and 1,472 were approved; making a total examined of 3,958, rejected 580. The responsibility of the examining surgeon is very great, as upon his decision rests the question whether the soldier entering the service of his country is a person of sound health, free from any abnormal condition; or one who will be soon the inmate of a hospital, from some local or constitutional infirmity, thereby becoming a positive expense and burden to the Government, instead of a positive good, in making up the sum total of its resources. In order that the examination might be critical, the applicants were required to divest themselves of their entire clothing. The candidates, as presented by the recruiting officers, may be divided into four classes.

1. Those who present a good exterior, and the rational and physical evidence of a normal condition of all the internal organs; and otherwise conform, in height and weight, to the requirements of the army regulations.

2. Those who exhibit some slight external defect, or some doubtful indication that there may be an obscure affection of one or more of the vital organs.

3. Those who are disabled, unqualifiedly, by reason of some defect in the senses, some chronic cutaneous affection, some striking deformity, or some internal organic lesion.

4. Those about whose habits, mental and moral condition, there may be a question.

The examination of the first and third classes is not difficult, and may be done often with rapidity. The second and fourth require frequently much time and tact, as well as judgment, to search and determine whether the bodily infirmities of the recruit are sufficient to cause his rejection, or his habits of life and moral bearing are such as to unfit him for discipline, or to be a proper person to associate with others in camp or on duty. The pernicious system of paying irresponsible agents a fixed sum per head for men who pass a medical examination, causes an undue pressure upon the surgeon, and he is importuned not to be too critical, as his severity or forbearance affects their pecuniary status. Hence the necessity of the surgeon conducting his examinations in a faithful and impartial manner.

The most prominent causes of disqualification which came under our notice, and which are not devoid of interest, in a medical point of view, were the following:—age, both too old and too young; height; deficiency or excess of weight; cataract; opacity of cornea; ptosis; loss of the eye; strabismus; myopia; deafness; loss of teeth; harelip; fissure of the palate; stammering; wry-neck; old fractures; permanent dislocation of humerus; anchylosis of shoulders, elbows, fingers, knees, or ankles; general rigidity of the joints; deformities from injuries of the arms, wrists, hands, fingers, thumbs, hips, ankles, feet; ununited fracture; loss of fore-fingers; loss of thumbs; loss of two or more phalanges; caries of elbow, femur and tibia; spinal curvature, with malformation of breast; splay-feet; toes crossing; inverted nails; wounds; atrophy of lower extremities; hernia, inguinal and femoral; hydrocele; varicocele; incontinence of urine; acute gonorrhœa; sarcocele; enlargement of the spermatic cord; hæmorrhoids; fistula in ano; primary and secondary syphilis; aneurism; varicose veins; scurvy; chronic ulcers of neck, legs, ankles, wrists, fingers and rectum; scabies; psoriasis; eczema; elephantiasis; deserters from English army, with the letter D branded upon the chest; want of muscular development; physical debility; paralysis; epilepsy; vertigo; rheumatic diathesis; lumbago; diarrhœa, chronic; pneumonia; hæmoptysis; chronic bronchitis; incipient phthisis; organic disease of the heart; intemperance; delirium tremens; insanity; effects of *coup de soleil;* no knowledge of English language; refusing to undress, &c. &c.

Such are the leading causes which were thought sufficient for the rejection of nearly 15 per cent. of those who applied for examination. The number rejected for each cause could be given if it was deemed essential. Many of the candidates who were judged disqualified were so from two or more infirmities, each of which was fully sufficient for their non-acceptance; but the most prominent one only was noted for record.

In the analysis of so large a number of physical ills, there are some interesting phenomena brought to view, which confirm many well-known pathological laws heretofore noticed. An allusion to a few instances will suffice. Cataract was found more frequent in the left eye than the right; so with opacity of the cornea. In loss of the globe, there were four cases of the right and nine of the left. Deafness was detected more decidedly on the left side than the right. Of sixty-two rejected for hernia, two thirds were ruptured on the left side. The same preponderance was true of varicocele. In fifty-eight cases of varicose veins, the veins were larger and more knotty and tortuous on the left leg than on the right. This infirmity was mostly met with among the laboring class, between the ages of 33 and 44. Chronic ulcers of the leg followed the same rule. On the other hand, anchylosis, deformities from injuries, &c., were more marked on the right extremities than on the left. Still the loss of fingers and thumbs on the left hand exceeded that of the right, except in the case of the forefinger of the right hand. Caries of bones was found more upon the right side, though the opposite was true of ulcerations.

It was apparent that the recruiting officers who were to receive commissions in the company they were mustering for the service, almost uniformly presented a better class of men, intellectually and physically, than agents whose interest did not extend beyond the reception of a surgeon's certificate for the recruit, showing that their interest only extended to the welfare of the pocket.

There were many instances of real outbursts of genuine patriotism, and an earnest desire to do something for their distracted country, which made it hard indeed for the surgeon to pronounce the word "rejected." As group after group of young men presented themselves, the tear of disappointment would often flow as the generous impulse of some one received the unwelcome tidings that he must be left behind. The same patriotic sentiment frequently showed itself among men of riper years. I well recollect one man of forty summers, who walked twenty miles the morning he enlisted, but, upon examination, exhibited a scrotal hernia of the size of a child's head; yet he thought it hard that he was not allowed to serve his country, when he could walk that distance without the least fatigue.

On behalf of my associates, I tender to the Committee of Ward 4 our thanks for the aid they rendered us in the discharge of our duties.

Respectfully submitted, Adino B. Hall.

The Paris correspondent of the London *Lancet*, under date of Sept. 9th, 1862, says that Dr. Cutter, of Woburn, Mass., was then in Paris, experimenting with his preparation of veratrum viride in the Hôtel Dieu and La Charité, where both MM. Trousseau and Piorry had placed patients at his disposal.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 15, 1863.

THE CITY HOSPITAL.—One of the most responsible duties devolved upon the Municipal Government just inaugurated is the organization of this important institution. The hospital buildings are now so near completeness that steps are already being taken for the complete carrying out of the charitable purposes for which it has been so much needed. It has been a matter of unavailing remonstrance and regret to the friends of the project that the original admirable plan of the buildings, once adopted by the government, and generally supposed to be the final plan, was subsequently radically changed without any very evident sufficient reason, and another substituted in its place, which in the opinion of many competent judges is far inferior to the first, and in many ways inadequate to the objects which the other would have most satisfactorily met. These regrets, however, are unprofitable now, and enough remains in the structure, as it stands, to answer in many ways the great public need. The question now is, what sort of an institution shall it be?

This is a question about which very opposite opinions are held by different parties, and upon its decision depends the question of its usefulness or its utter failure. Let the unhappy fate of a neighboring institution be a warning to those who have it in charge, to administer the trust in their hands with wisdom.

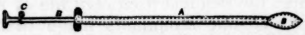
There has been a disposition from the time the project was first started, and among those too who were likely to have a good deal of influence in arranging a plan for carrying it on, to make it just what the city does *not* need, and exclude the class for which there is a very urgent necessity for hospital accommodations; to make it, in short, a copy, so far as possible, of the Massachusetts General Hospital. This idea has had a strong hold on some influential minds, and probably is still entertained to some extent. The late Mayor, several years since, while a member of the Board of Aldermen, made a report in which it was strongly urged that a hospital was needed where persons of limited means could be received on payment of a small sum for board. Much stress was laid on this point; and we felt it necessary to show at that time, in the pages of this JOURNAL and elsewhere, from positive data, that the opinion was an entirely erroneous one. Institutions already existing did at that time, and do now, fully meet the wants of this class of patients. On the other hand, it is obvious to every reflecting mind that a hospital which is the resort of a considerable number of paying boarders cannot and ought not to be open to all classes of patients. This would at once operate to exclude the paying ones. We need merely to mention such diseases as erysipelas, scarlatina and other contagious diseases, to make this point evident enough. Many persons enter the Massachusetts General Hospital every year to undergo important surgical operations, whose lives would be put in imminent peril were cases of erysipelas admitted also. And it was one of the admirable features of the original plan of the new hospital, that it was made up of a number of distinct pavilions, allowing of the most complete isolation of contagious cases and the consequent avoidance of all danger to the other inmates of the institution. This end cannot be so well attained in the structure which has been erected. Nevertheless, the want of a receptacle of just the cases we have mentioned, within the bounds of the city proper, is very great. Many a case of erysipelas have we seen in times past, shut up in small rooms in boarding houses, without ventilation or fireplaces even, compelled to endure all the chances and discomforts of this grave disease, under circumstances most unfavorable for recovery, simply because there was no hospital to put them in. Many a case of scarlatina have we seen in the crowded houses of the poor, a whole family, with several children, sleeping in one miserable apartment, exposed to the contagion of this dire disease, their lives endangered and often sacrificed, for the want of some proper hospital to which cases might be transferred on its first outbreak. Neither has there been any hospital here where cases of syphilis could be treated. The want of a lying-in hospital has also been severely felt for several years, since the closure of the building originally constructed for the purpose on Springfield Street.

Such are a few of the cases for which hospital accommodation is greatly needed in Boston, but we have by no means mentioned them all. In a word, what is wanted is an alms-house hospital, to which all the sick who are sent to Deer Island and many others should be admitted. We sincerely hope this want may be appreciated by the gentlemen having this important matter in charge, and that it may be fully met, so far as the buildings as now constructed allow. Let us not have an institution which shall attempt a work of supererogation, and only stand as a monument of municipal folly and personal vanity.

NEW LANCETED PROBE. *Mr. Editor,*—A few weeks ago, Dr. Squire, Surgeon of one of the New York Regiments of Volunteers, and now Surgeon in charge of Locust Spring Hospital, sent to me the accompanying paper. Dr. Squire is an excellent and thoughtful surgeon. I hope that the profession will look at his simply-contrived instrument. At my desire, Mr. Metcalf has procured it from Mr. Tiemann.

Yours, HENRY I. BOWDITCH.

"In military surgery, suppurating sinuses in the areolar tissues, and abscesses between the muscles and around the bones, are of no unfrequent occurrence; and often the integrity of a part, or the safety of an individual even, depends upon the timely interference of the surgeon in making proper openings for the discharge of matter which might, otherwise, burrow and accumulate, and ultimately bring on hectic fever, diarrhœa, disorder of the stomach, pyæmia, and perhaps death. Usually, to make the necessary openings, the surgeon first finds the bottom of the abscess or sinus with a common probe, and then cuts, from without inwards, with a lancet or bistoury; but the operation may be more easily and satisfactorily performed by means of my new instrument, the *lanceted probe*, a representation of which is here given.



A, Hollow probe. B B, Lancet. C, Screw to regulate depth of incision.

One surface of the lancet is a perfect plane, to rest upon the corresponding plane surface of its shield—the expanded portion of the probe. The slender stem or handle of the lancet, for the distance of two inches from the blade, is flat; for the rest of the distance it is round. The lancet may be withdrawn from the probe at any time by unscrewing the button at the end, opposite the blade. The uses and advantages of the instrument will be apparent without further description. It may be curvilinear, instead of straight, if so desired. The instrument may be obtained of George Tiemann & Co., 63 Chatham St., New York, and also of T. Metcalf & Co., 39 Tremont St., Boston.

T. H. Squire, *Locust Spring Hospital.*"

Army Ambulances. *Mr. Editor,*—In your comments on the note published in your issue of the 25th ult., you say:—"Our correspondent undoubtedly refers to the two-wheeled ambulance," &c.

Allow me to say I wished also to convey the idea that a wagon without springs might be better suited to the purpose than any two- or four-wheeled with them. This proposition may at first appear preposterous; yet with the aid of illustrations of the philosophy of motion, with which every child is familiar, I could easily prove that it is in the main correct.

In writing I can only say that a stretcher so drawn between the sides of a wagon body as to have no *swaying motion*, would give to the body resting upon it a "simple" motion, while its elasticity "softens" the jolting produced by the unevenness of the road. The addition of springs beneath the body of the wagon makes this a "compound" motion, and resting a part of the wagon body on the horse's back, as in the two-wheeled ambulance, "compounds" it into what may well be styled "torture" for a wounded man.

An Ex-Southern Apothecary.

Rainsford Island Hospital.—This is a Massachusetts State Hospital for sick paupers, and is situated on Rainsford Island in Boston Harbor. From the ninth Annual Report of the Inspectors and Superintendent we learn that the number of patients in hospital on October 1, 1861, was 165; admitted since, 494. Discharged during year, 462; died, 70; remaining September 30, 1862, 127. Total, 659. Number admitted since opening of hospital, 6,224. Of inmates admitted during year, there were born in Massachusetts, 92; other States, 74; abroad, 328. The considerable diminution in the number of patients is mainly to be attributed to the influence of military bounties and pay in increasing the income of very many families above that to which they were accustomed in times of peace. In their present improved circumstances, they escape many diseases to which they were previously subject, and, as a consequence, the decrease has been greater in the number of females than among the males admitted. It is pleasant to trace this result of the war, and sad to observe that its benefits do not extend to all poor women. Another curious instance of the effect of the war, is seen in the fact of the treatment of but 20 cases of delirium tremens during the year under report, against 41 cases in the previous year, an improvement which can scarcely be attributed to any other cause than the removal from civil life of many restless men, whose craving for alcoholic stimulants made them subjects for this disease and for hospital treatment. The enlistments for the war have also made it difficult to obtain the class of laborers on whom the hospital has usually relied for all out-of-door work beyond the daily routine, so that it has been impossible to carry out several plans for important improvements. On the other hand, many of the female patients have found pleasant and beneficial work in sewing, knitting, &c., for the Sanitary Commission, from time to time, the occupation being never continued beyond the limits of wholesome excitement and gratification. The expenditures of the year are stated at $21,576 11.

HEALTH OF BOSTON IN 1862.—Dr. Jones, the City Physician, in his annual report refers to the fact of the general good health of the city during the past year, no epidemic or contagious disease having prevailed to any extent. Although threatened with smallpox in several wards at the beginning of the year, energetic efforts circumscribed its extent, and the deaths were few. Vaccinations during the year, 2,338; re-vaccinated, 303; physicians supplied with vaccine matter, 246.

The Port Physician reports that from Oct. 1 to Nov. 1, he boarded 2 ships, 21 barks, 35 brigs, 18 schooners, and 1 U. S. gunboat, making in all, under the order of June 16, 22 ships, 48 barks, 127 brigs, 78 schooners. Admitted to the hospital, 9 cases of smallpox, 4 of yellow fever, and 1 of intermittent fever. Two deaths occurred, both from smallpox.

ASSOCIATION FOR THE RELIEF OF AGED INDIGENT FEMALES.—The thirteenth annual meeting of the above-named association was held lately in this city. The clerk submitted his report, from which we learn that the present number of inmates is 58; admitted during the year, 6; died, 3. From the Treasurer's report it appears that the expenditures for the year were $8,014 41; receipts, $11,590 01. Legacies received amount to $1,785; donations, $1,100; receipts for board, $3,229 94. The new building in process of erection in rear of the one now occupied, will be completed about the first of July, and will cost about $50,000.

MORTALITY OF PROVIDENCE, R. I., FOR 1862.—The annual report of Dr. Snow, City Registrar, shows the whole number of deaths in Providence last year to have been 914. In 1861 the number was 1051, and the average for the last six years has been 993. Of the deaths last year, 450 were males, 464 females; married 287, single 509, widows 80, widowers 38; born in the United States 687, Ireland 190, England and Scotland 29, Germany 1, other countries 7. During the first quarter of the year there were 197 deaths, second quarter 192, third quarter 271, fourth quarter 254. The deaths under 5 years of age numbered 334, between 80 and 90 years 32, between 90 and 100 years 9, over 100 years 1. Among the causes of death we notice—consumption 191, pneumonia 54, disease of the heart 49, cholera infantum 44, old age 41, dysentery 22, diarrhœa and croup (each) 31, fevers (all kinds) 21, cancer (all kinds) 20, diphtheria 17, scarlatina 14, apoplexy, hydrocephalus and disease of the liver (each) 19, smallpox 4, &c. The whole number of deaths for the year shows one death in 55·4 of the whole population; among the whites, one in 55·8; the colored, one in 45·2: among males, one in 53·1; females, one in 57·7. It also gives one death in every 7·2 dwelling houses of the city; one in every 11·1 families; one in 63·0 of the population of American parentage, and one in 47·8 of that of foreign parentage.

Relief to Sick Soldiers in Washington.—The Special Relief Agent of the Sanitary Commission, Mr. Frederick N. Knapp, in his fourth Report, gives the following statement of the number of soldiers received into the "Home," since it was first opened:—From Sept. 10th, 1861, to the present date, Dec. 15th, 1862: Total number of individual soldiers received, 14,106; total number of night's lodgings given, 36,866; total number of meals given, 81,760. Total cost to the Commission, $11,030 00; the average cost of each man being 91 cents.

The Medical and Surgical Reporter.—Our cotemporary has been compelled to yield to the force of circumstances embodied in the high price of paper at the present time, and announces that for the present it will appear only once in a fortnight, until better times shall warrant the heavy expense inseparable from a weekly issue.

Death of Dr. Jacob Harsen, of New York.—In the death of Dr. Harsen the profession of this city has lost one of its most philanthropic and public-spirited members. He had long been identified with the dispensary system in New York, and for many years was president of the Northern Dispensary. He had recently established a prize, known as the "Harsen Prize," consisting of $100, to be awarded to the best clinical report by a member of the medical staff of the New York Hospital. Being in the enjoyment of wealth he was able to give great efficiency to his efforts in any cause in which he became interested. His disease was cerebral.—*American Med. Times.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, January 10th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	47	29	76
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.1	36.1	72.2
Average corrected to increased population - - - - -	00	00	85.12
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
10	8	2	12	0	1	1	0

To Correspondents.—Dr. Brown's Surgical Cases and Dr. Bryan's Diary of a Brigade Surgeon have been received.

Books Received.—Clinical Lectures on the Diseases of Women, by J. Y. Simpson, M.D., F.R.S.E., Professor of Midwifery in the University of Edinburgh, &c. &c. Illustrated with one hundred and two Engravings on Wood. Philadelphia: Lea & Blanchard. 1863.

Married,—In Kennebunk, Me., Nov. 19th, Edwin Manley, M.D., of North Easton, Mass., to Miss Emeline L. Hatch, daughter of the late Capt. Joseph Hatch, of K.

Died,—In North Andover, Dec. 27th, Charles E. Akerman, M.D., formerly of Hampton Falls, N. H., 31.—In New York city, January 3d, Bern. Wheeler Budd, M.D., in the 70th year of his age.

Deaths in Boston for the week ending Saturday noon, Jan. 10th, 76. Males, 47—Females, 29.—Accident, 4—apoplexy, 3—inflammation of the bowels, 1—congestion of the brain, 1—bronchitis, 3—consumption, 10—convulsions, 2—croup, 8—cyanosis, 1—diarrhœa, 2—dropsy, 1—dropsy of the brain, 2—dysentery, 1—scarlet fever, 2—typhoid fever, 1—hæmoptysis, 1—hæmorrhage (from the navel), 1—disease of the heart, 2—infantile disease, 4—inflammation of the lungs, 12—marasmus, 2—old age, 1—peritonitis, 1—pleurisy, 1—sore throat, 1—teething, 1—tumor, 2—unknown, 4—whooping cough, 1.

Under 5 years of age, 38—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 8—above 60 years, 10. Born in the United States, 59—Ireland, 12—other places, 5.